

[12] 发明专利申请公开说明书

[21] 申请号 02118027. X

[43] 公开日 2002 年 12 月 4 日

D 2 [11] 公开号 CN 1383301A

[22] 申请日 2002. 4. 19 [21] 申请号 02118027. X

[30] 优先权

[32] 2001. 4. 20 [33] JP [31] 122953/01

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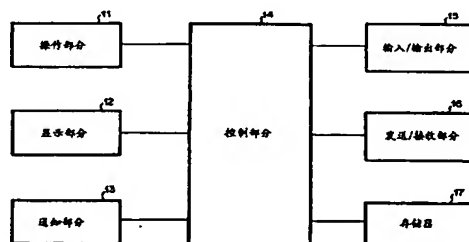
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[54] 发明名称 自动对收到的邮件消息进行分类的设备、方法和记录媒体

[57] 摘要

本发明提供自动对收到的邮件消息进行分类的设备和方法。按照所述设备和方法,一个接收到的邮件消息的重要性被确定。依赖确定的结果,一个答复邮件消息被发送。可替换地,周期性地通知用户接收到的邮件消息。结果是,用户可以容易地发送一个答复邮件消息或执行一个回叫。一个控制部分确定加到一个接收到的邮件消息上的一个发送者邮件地址或包含在接收到的邮件消息的一个主题中的特征信息是否已被注册到一个存储器。当发送者邮件地址或特征信息已经被注册时,所述接收到的邮件消息就被认为是一个重要的邮件消息。对应记录在存储器中的时间表数据,发送一个答复邮件消息或者使用一个音频告警通知用户该接收到的邮件消息。



1. 一种自动对接收到的邮件进行分类的设备, 包括:
用于注册预定义的特征信息的装置; 以及
如果加到一个接收到的邮件上的特征信息与注册的特征信息相
5 匹配的话, 则显示出包括该注册特征信息的一个邮件已经被接收到的
的装置。
2. 如权利要求 1 中阐述的自动对接收到的邮件进行分类的设备, 还包括:
如果所收邮件中的一个发送者的邮件地址与注册的特征信息相
10 匹配的话, 则显示出包括该注册特征信息的邮件已经被接收到的装
置。
3. 如权利要求 1 中阐述的自动对接收到的邮件进行分类的设备, 还包括:
如果包括在所收邮件的一个主题中的特征信息与注册的特征信
15 息相匹配的话, 则显示出包括该注册特征信息的邮件已经被接收到的
的装置。
4. 如权利要求 1 中阐述的自动对接收到的邮件进行分类的设备, 还包括:
用于注册一个用户的时间表的装置; 以及
20 接收到所述邮件之后, 用于在该时间表的基础上确定是否可能响
应该邮件的装置。
5. 如权利要求 4 中阐述的自动对接收到的邮件进行分类的设备, 还包括:
如果接收到邮件之后在该时间表的基础上确定可能响应该邮
25 件, 则用一个声音通知邮件已经被接收到的装置。
6. 如权利要求 4 中阐述的自动对接收到的邮件进行分类的设备, 还包括:
如果接收到邮件之后在该时间表的基础上确定不可能响应该邮
件, 则生成响应于该接收到的邮件的一个响应邮件并将该响应邮件
30 发送给所收邮件的一个发送者的装置。
7. 如权利要求 6 中阐述的自动对接收到的邮件进行分类的设备, 还包括:

发送所述响应邮件之后，用于显示该响应邮件已经被发送的装置。

8. 如权利要求 7 中阐述的自动对接收到的邮件进行分类的设备，还包括：

5 用于以一个图标显示包含所述注册特征信息的邮件已经被接收到并且所述响应邮件已经被发送的装置。

9. 如权利要求 8 中阐述的自动对接收到的邮件进行分类的设备，还包括：

10 图标被选中后，用于显示一个简化的信息列表的装置，该信息列表不包括所收邮件的主体或不包括包含所收邮件主体的详细信息。

10. 如权利要求 9 中阐述的自动对接收到的邮件进行分类的设备，还包括：

15 在一个预定义的显示详细信息的显示区域被选中后，用于显示一个屏幕来生成响应于详细信息被显示的所收邮件的另一个响应邮件的装置。

11. 如权利要求 9 中阐述的自动对接收到的邮件进行分类的设备，还包括：

 在一个预定义的显示详细信息的显示区域被选中后，用于对详细信息被显示的所收邮件的一个发送者执行回叫的装置。

20 12. 一种自动对接收到的邮件进行分类的方法，包括的步骤有：
 注册预定义的特征信息；以及

 如果加到一个接收到的邮件上的特征信息与注册的特征信息相匹配的话，就显示出包括该注册特征信息的一个邮件已经被接收到。

25 13. 如权利要求 12 中阐述的自动对接收到的邮件进行分类的方法，还包括的步骤有：

 如果所收邮件中的一个发送者的邮件地址与注册的特征信息相匹配的话，就显示出包括该注册特征信息的邮件已经被接收到。

30 14. 如权利要求 12 中阐述的自动对接收到的邮件进行分类的方法，还包括的步骤有：

 如果包括在所收邮件的一个主题中的特征信息与注册的特征信息相匹配的话，就显示出包括该注册特征信息的邮件已经被接收

到。

15. 如权利要求 12 中阐述的自动对接收到的邮件进行分类的方法, 还包括的步骤有:

注册一个用户的时间表; 以及

5 接收到所述邮件之后, 在该时间表的基础上确定是否可能响应该邮件。

16. 如权利要求 15 中阐述的自动对接收到的邮件进行分类的方法, 还包括的步骤有:

10 如果接收到邮件之后在该时间表的基础上确定可能响应该邮件, 就用一个声音通知邮件已经被接收到

17. 如权利要求 15 中阐述的自动对接收到的邮件进行分类的方法, 还包括的步骤有:

15 如果接收到邮件之后在该时间表的基础上确定不可能响应该邮件, 就生成响应于该接收到的邮件的一个响应邮件并将该响应邮件发送给所收邮件的一个发送者。

18. 如权利要求 17 中阐述的自动对接收到的邮件进行分类的方法, 还包括的步骤有:

发送所述响应邮件之后, 显示该响应邮件已经被发送。

20 19. 如权利要求 18 中阐述的自动对接收到的邮件进行分类的方法, 还包括的步骤有:

用一个图标显示包含所述注册特征信息的邮件已经被接收到并且所述响应邮件已经被发送。

20. 如权利要求 19 中阐述的自动对接收到的邮件进行分类的方法, 还包括的步骤有:

25 图标被选中后, 显示一个简化的信息列表, 该信息列表不包括所收邮件的主体或不包括包含所收邮件主体的详细信息。

21. 如权利要求 20 中阐述的自动对接收到的邮件进行分类的方法, 还包括的步骤有:

30 在一个预定义的显示详细信息的显示区域被选中后, 显示一个屏幕来生成响应于详细信息被显示的所收邮件的另一个响应邮件。

22. 如权利要求 20 中阐述的自动对接收到的邮件进行分类的方法, 还包括的步骤有:

在一个预定义的显示详细信息的显示区域被选中后,对详细信息被显示的所收邮件的一个发送者执行回叫。

23. 一种在其上记录一个程序以便使一个计算机实现一个自动对接收到的邮件进行分类的方法的记录媒体, 所述方法包括的步骤有:

注册预定义的特征信息; 以及

如果加到一个接收到的邮件上的特征信息与注册的特征信息相匹配的话, 就显示出包括该注册特征信息的一个邮件已经被接收到。

24. 如权利要求 23 中阐述的记录媒体, 其中所述方法还包括的步骤有:

如果所收邮件中的一个发送者的邮件地址与注册的特征信息相匹配的话, 就显示出包括该注册特征信息的邮件已经被接收到。

25. 如权利要求 23 中阐述的记录媒体, 其中所述方法还包括的步骤有:

如果包括在所收邮件的一个主题中的特征信息与注册的特征信息相匹配的话, 就显示出包括该注册特征信息的邮件已经被接收到。

26. 如权利要求 23 中阐述的记录媒体, 其中所述方法还包括的步骤有:

注册一个用户的时间表; 以及

接收到所述邮件之后, 在该时间表的基础上确定是否可能响应该邮件。

27. 如权利要求 26 中阐述的记录媒体, 其中所述方法还包括的步骤有:

如果接收到邮件之后在该时间表的基础上确定可能响应该邮件, 就用一个声音通知邮件已经被接收到

28. 如权利要求 26 中阐述的记录媒体, 其中所述方法还包括的步骤有:

- 如果接收到邮件之后在该时间表的基础上确定不可能响应该邮件, 就生成响应于该接收到的邮件的一个响应邮件并将该响应邮件发送给所收邮件的一个发送者。

29. 如权利要求 28 中阐述的记录媒体, 其中所述方法还包括的步骤有:

发送所述响应邮件之后, 显示该响应邮件已经被发送。

5 30. 如权利要求 29 中阐述的记录媒体, 其中所述方法还包括的步骤有:

用一个图标显示包含所述注册特征信息的邮件已经被接收到并且所述响应邮件已经被发送。

31. 如权利要求 30 中阐述的记录媒体, 其中所述方法还包括的步骤有:

10 图标被选中后, 显示一个简化的信息列表, 该信息列表不包括所收邮件的主体或不包括包含所收邮件主体的详细信息。

32. 如权利要求 31 中阐述的记录媒体, 其中所述方法还包括的步骤有:

15 在一个预定义的显示详细信息的显示区域被选中后, 显示一个屏幕来生成响应于详细信息被显示的所收邮件的另一个响应邮件。

33. 如权利要求 31 中阐述的记录媒体, 其中所述方法还包括的步骤有:

在一个预定义的显示详细信息的显示区域被选中后, 对详细信息被显示的所收邮件的一个发送者执行回叫。

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自动对收到的邮件消息进行分类的设备、方法和记录媒体

技术领域

- 5 本发明涉及一种设备、方法、和记录媒体用于自动对收到的邮件消息进行分类，特别是，涉及用于确定每一个接收到的邮件消息是否都是重要的，并且如果确定一个邮件消息是重要的就发送一个答复邮件消息的设备、方法、和记录媒体。

背景技术

- 10 近年来，移动通信终端单元例如便携式电话单元已经被广泛用于电子邮件消息以及呼叫。除此以外，将定址到一个办公室内的一台个人计算机上的一个电子邮件消息转发到一个移动通信终端单元的业务已经实现了。

- 15 然而，当定址到一台个人计算机上的一个电子邮件消息被转发到一个移动通信终端单元时，在移动通信终端单元内的邮件消息的数量就会增加。结果是，邮件消息的管理变得复杂。除此之外，接收到的邮件消息不止包括重要的消息，还包括不重要的消息。这样，用户就很难快速地选取重要的邮件消息并发送他们的答复邮件消息。

- 20 发明内容

本发明的目的是提供设备、方法、和程序用于确定每一个接收到的邮件消息是否都是重要的并对应确定的结果发送一个答复或者周期性地以一种告警来通知用户以便他或她能很容易地发送对一个接收到的邮件消息的一个答复邮件消息或进行一个回叫。

- 25 按照本发明，提供一种自动对接收到的邮件进行分类的设备，该设备包括：用于注册预定义的特征信息的装置；以及如果加到一个接收到的邮件上的特征信息与注册的特征信息相匹配的话，则显示出包括该注册特征信息的一个邮件已经被接收到的装置。

- 30 自动对接收到的邮件进行分类的设备还包括：如果所收邮件中的一个发送者的邮件地址与注册的特征信息相匹配的话，则显示出包括该注册特征信息的邮件已经被接收到的装置。

自动对接收到的邮件进行分类的设备还包括：如果包括在所收邮

件的一个主题中的特征信息与注册的特征信息相匹配的话,则显示出包括该注册特征信息的邮件已经被接收到的装置。

自动对接收到的邮件进行分类的设备还包括:用于注册一个用户的时间表的装置;以及接收到邮件之后,用于在该时间表的基础上
5 确定是否可能响应该邮件的装置。

自动对接收到的邮件进行分类的设备还包括:如果接收到邮件之后在该时间表的基础上确定可能响应该邮件,则用一个声音通知邮件已经被接收到的装置。

自动对接收到的邮件进行分类的设备还包括:如果接收到邮件之后在该时间表的基础上确定不可能响应该邮件,则生成响应于该接收到的邮件的一个响应邮件并将该响应邮件发送给所收邮件的一个发送者的装置。
10

自动对接收到的邮件进行分类的设备还包括:发送所述响应邮件之后,用于显示该响应邮件已经被发送的装置。

自动对接收到的邮件进行分类的设备还包括:用于以一个图标显示包含所述注册特征信息的邮件已经被接收到并且所述响应邮件已经被发送的装置。
15

自动对接收到的邮件进行分类的设备还包括:图标被选中后,用于显示一个简化的信息列表的装置,该信息列表不包括所收邮件的主体或不包括包含所收邮件主体的详细信息。
20

自动对接收到的邮件进行分类的设备还包括:在一个预定义的显示详细信息的显示区域被选中后,用于显示一个屏幕来生成响应于详细信息被显示的所收邮件的另一个响应邮件的装置。

自动对接收到的邮件进行分类的设备还包括:在一个预定义的显示详细信息的显示区域被选中后,用于对详细信息被显示的所收邮件的一个发送者进行回叫的装置。
25

本发明的这些和其它目的、特征和优点,在结合附图对其一个最佳模式的实施方案的详细描述中,会更加明显。

附图说明

图-1 是一个示意性方框图,示出按照本发明一个实施方案的一个自动对收到的邮件消息进行分类的设备的结构;
30

图-2 是一个流程图,示出按照本发明实施方案的自动对收到的

邮件消息进行分类的设备对一个接收到的邮件消息进行分类的操作;

图-3 是一个示意性方框图, 示出按照本发明实施方案的自动对收到的邮件消息进行分类的设备的图标;

5 图-4 是一个流程图, 示出按照本发明实施方案的自动对收到的邮件消息进行分类的设备的一个答复邮件消息生成操作;

图-5 是一个示意性方框图, 示出记录在按照本发明实施方案的、自动对收到的邮件消息进行分类的设备的存储器中的时间表数据; 以及

10 图-6 是一个示意性方框图, 示出按照本发明实施方案的、自动对收到的邮件消息进行分类的设备对接收到的邮件消息进行分类的操作。

具体实施方式

图-1 是一个示意性方框图, 示出一个自动对收到的邮件消息进行分类的设备的结构。接下来, 参考图-1, 将对按照本发明实施方案的、自动对收到的邮件消息进行分类的设备的结构进行描述。

自动对收到的邮件消息进行分类的设备具有一个操作部分 11、一个显示部分 12、一个通知部分 13、一个控制部分 14、一个输入/输出部分 15、一个发送/接收部分 16、以及一个存储器 17。

20 操作部分 11 允许用户对自动对收到的邮件消息进行分类的设备执行一个输入操作。当用户编辑(生成)一个邮件消息时, 他或她用操作部分 11 执行一个特征输入操作。用操作部分 11 输入的特征数据在显示部分 12 处被显示出来并被记录进存储器 17。显示部分 12 显示自动对收到的邮件消息进行分类的设备的状态、预定义的信息、图标化的告警等等。

25 发送/接收部分 16 在诸如语音通信以及电子邮件消息的发送和接收的无线通信中执行发送和接收。存储器 17 存储由发送/接收部分 16 接收到的邮件消息以及由操作部分 11 生成的邮件消息。除此之外, 存储器 17 存储包含例如用户名、电话号码、电子邮件地址等
30 等信息的电子电话目录数据。用户对电子电话目录数据中重要的邮件地址信息指定“重要性: 高”。存储器 17 还存储预定义的信息, 例如用户的时间表数据、设置等等。该时间表数据是在一个预定义

的时段内用户时间表的数据。对在该用户不能响应一个呼叫或一个邮件消息的时区内的时间表数据，用户指定“响应：不可能”。

通知部分 13 通知用户：发送/接收部分 16 接收到一个输入呼叫。除此之外，通知部分 13 通知用户在自动对收到的邮件消息进行分类的设备内的一个状态改变。此外，当一个邮件消息被接收到时，通知部分 13 就将其通知给用户。输入/输出部分 15 输入并输出一个声音。

控制部分 14 控制自动对收到的邮件消息进行分类的设备中的每一部分。当来自一个发送者侧终端单元的一个邮件消息被接收到时，控制部分 14 就查找记录在存储器 17 内的电子电话目录数据或时间表数据；该数据对应记录于存储器 17 中的接收到邮件消息内包含的信息。当查找的结果表示出接收到的邮件消息满足一个预定义的条件时，控制部分 14 就生成一个答复邮件消息。发送/接收部分 16 将生成的答复邮件消息发送给发送者侧终端单元。

当查找的结果表示出发送一个答复邮件消息的条件不满足时，显示部分 12 就显示一个图标、一个消息、或代表条件不满足的诸如此类的表示。除了显示部分 12 的显示操作之外，通知部分 13 通知用户条件不满足。

显示部分 12 和通知部分 13 执行各自的操作之后，当用户通过操作部分 11 选中一个图标、一个消息、或显示在显示部分 12 处的诸如此类的表示时，接收到的邮件消息就在显示部分 12 处显示出来。用户在显示部分 12 处选取接收到的邮件消息。之后，用户用输入/输出部分 15 和发送/接收部分 16 执行一个语音通信并发送一个邮件消息。

图-2 是一个流程图，示出按照本发明实施方案的自动对收到的邮件消息进行分类的设备对接收到的邮件消息进行分类的操作。接下来，参考对应图-2 的流程图图-1，将对按照本发明实施方案的自动对收到的邮件消息进行分类的设备对接收到的邮件消息进行分类的操作进行描述。

当发送/接收部分 16 接收到一个邮件消息时，控制部分 14 在电子电话目录数据中查找发送者邮件地址并确定发送者邮件地址是否与包含在电子电话目录数据中的一个地址匹配（在步骤 S201 处）。

当确定的结果表示出发送者邮件地址与包含在电子电话目录数据中的一个地址匹配（即，在步骤 S201 处确定的结果是‘是’）时，控制部分 14 就确定包含在电子电话目录数据中匹配的地址是否被指定为“重要性：高”（在步骤 S202 处）。

- 5 当确定的结果表示出包含在电子电话目录数据中匹配的地址没被指定为“重要性：高”（即，在步骤 S202 处确定的结果是‘否’）或当确定的结果表示出发送者邮件地址与包含在电子电话目录数据中的任何一个地址都不匹配（即，在步骤 S201 处确定的结果是‘否’）时，控制部分 14 就确定接收到的邮件消息的主题是否包含注册在存储器 17 中的对接收到的邮件消息进行分类的关键字中的一个（在步骤 S203 处）。

- 15 当确定的结果表示出接收到的邮件消息的主题中不包含任何关键字（即，在步骤 S203 处确定的结果是‘否’）时，显示部分 12 就显示一个表示“一个新的邮件消息已经被接收到”的图标（在步骤 S206 处）。之后，对接收到的邮件消息进行分类的操作就完成了。

在这个例子中，表示“一个新的邮件消息已经被接收到”的一个图标被显示出来后，即便还有一个满足图标显示条件的邮件消息被接收到，被显示的图标数量也不增加。换句话说，只有一个图标被显示出来。

- 20 当确定的结果表示出包含在电子电话目录数据中匹配的地址已被指定为“重要性：高”（即，在步骤 S202 处确定的结果是‘是’）或当确定的结果表示出接收到的邮件消息的主题中包含一个关键字（即，在步骤 S203 处确定的结果是‘是’）时，控制部分 14 就在存储器 17 中查找对应邮件消息被接收的时间的时间表数据并确定对应
25 邮件消息被接收的时间的时间表数据是否已经被记录在存储器 17 中（在步骤 S204 处）。

- 30 当确定的结果表示出对应邮件消息被接收的时间的时间表数据没有被记录在存储器 17 中（即，在步骤 S204 处确定的结果是‘否’）时，显示部分 12 就显示一个表示“需要一个立即响应”的图标。除了表示“需要一个立即响应”的图标在显示部分 12 处被显示出来之外，通知部分 13 和输入/输出部分 15 以一个音频告警来通知用户（在步骤 S207 处）。用户被通知后，自动对收到的邮件消息进行分

类的设备对接收到的邮件消息进行分类的操作就完成了。

表示“需要一个立即响应”的图标被显示出来后，当满足显示条件的一个邮件消息被接收到时，显示在显示部分 12 处的图标的数量相应地增加。当显示在显示部分 12 处的图标的数量超过在存储器 17 处注册的一个预定义的数量时，超过预定义数量的图标就在显示部分 12 处以从较早的邮件消息开始的顺序被清除。

当确定的结果表示出对应邮件消息被接收的时间的时间表数据已经被记录在存储器 17 中（即，在步骤 S204 处确定的结果是‘是’）时，控制部分 14 就确定对应邮件消息被接收的时间的时间表数据是否被指定为“响应：不可能”（在步骤 S205 处）。

当确定的结果表示出对应邮件消息被接收的时间的时间表数据没有被指定为“响应：不可能”（换句话说，时间表数据被指定为“响应：可能”）（即，在步骤 S205 处确定的结果是‘否’）时，显示部分 12 就显示一个表示“需要一个立即响应”的图标（在步骤 S207 处）。之后，对接收到的邮件消息进行分类的操作就完成了。

当确定的结果表示出对应邮件消息被接收的时间的时间表数据已经被指定为“响应：不可能”（即，在步骤 S205 处确定的结果是‘是’）时，一个答复邮件消息被生成，消息的内容是“现正在参加一个会议”、“现正在访问一个客户”或诸如此类。发送/接收部分 16 将生成的答复邮件消息发送给已经发送了一个初始邮件消息的终端单元（在步骤 S208 处）。被发送的答复邮件消息被记录在存储器 17 中。

答复邮件消息被发送后，显示部分 12 就显示一个表示“一个答复邮件消息已经被自动发送”的图标（在步骤 S209 处）。表示“一个答复邮件消息已经被自动发送”的图标被显示出来后，自动对收到的邮件消息进行分类的设备对接收到的邮件消息进行分类的操作就完成了。

图-3 是一个示意性方框图，示出按照本发明实施方案的自动对收到的邮件消息进行分类的设备的图标。接下来，参考图-3，将对按照本发明实施方案的对一个邮件消息进行显示的操作进行描述。图标被显示出来后，就执行对邮件消息的显示操作。

如图-3 所示，自动对收到的邮件消息进行分类的设备 300 的显

示部分 12 显示:一个表示“一个新的邮件消息被接收到”的图标 301,一个表示“需要一个立即响应”的图标 302,以及一个表示“一个答复邮件消息已经被自动发送”的图标 303。

当表示“一个新的邮件消息被接收到”的图标 301 在显示部分 12 处被选定时,显示部分 12 就显示一个由发送/接收部分 16 接收到的邮件消息的列表。当表示“需要一个立即响应”的图标 302 或表示“一个答复邮件消息已经被自动发送”的图标 303 被选定时,对应被选定图标的接收到的邮件消息的细节就被显示出来。对应接收到的邮件消息的细节,一个答复邮件消息响应接收到的邮件消息被生成或作为一个语音通信的一个回叫被实现。

图-4 是一个流程图,示出按照本发明实施方案的自动对收到的邮件消息进行分类的设备的一个答复操作。接下来,参考图-3,对应示于图-4 的流程图,将对按照本发明实施方案的自动对收到的邮件消息进行分类的设备的答复操作进行描述。在一个或多个图标被显示后,答复操作被实现。

控制部分 14 确定表示“需要一个立即响应”的图标 302 是否已经从显示在显示部分 12 处的图标中被选中(在步骤 S401 处)。当确定的结果表示出表示“需要一个立即响应”的图标 302 已经被选中(即,在步骤 S401 处确定的结果是‘是’)时,对应代表“需要一个立即响应”的图标 302 的接收到的邮件消息的细节就被显示在显示部分 12 处(在步骤 S406 处)。当代表“需要一个立即响应”的图标 302 被选中时,图标 302 就被从显示部分 12 处清除。此外,告警停止。

当确定的结果表示出表示“需要一个立即响应”的图标 302 没有被选中(即,在步骤 S401 处确定的结果是‘否’)时,控制部分 14 就确定表示“一个答复邮件消息已经被自动发送”的图标 303 是否被选中(在步骤 S402 处)。当确定的结果表示出表示“一个答复邮件消息已经被自动发送”的图标 303 被选中(即,在步骤 S402 处确定的结果是‘是’)时,对应代表“一个答复邮件消息已经被自动发送”的图标 303 的接收到的邮件消息的细节被显示在显示部分 12 处(在步骤 S406 处)。当代表“一个答复邮件消息已经被自动发送”的图标 303 被选中时,图标 303 就被从显示部分 12 处清除。

当确定的结果表示出表示“一个答复邮件消息已经被自动发送”的图标 303 没有被选中（即，在步骤 S402 处确定的结果是‘否’）时，控制部分 14 就确定表示“一个新的邮件消息被接收到”的图标 301 是否被选中（在步骤 S403 处）。当确定的结果表示出表示“一个新的邮件消息被接收到”的图标 301 没有被选中（即，在步骤 S403 处确定的结果是‘否’）时，自动对收到的邮件消息进行分类的设备的答复操作就完成了。

当确定的结果表示出表示“一个新的邮件消息被接收到”的图标 301 已经被选中（即，在步骤 S403 处确定的结果是‘是’）时，显示部分 12 就显示一个接收到的邮件消息的列表（在步骤 S404 处）。接收到的邮件消息的列表显示出预定义的概要信息例如“发送者用户名”或每一接收到的邮件消息的“主题”。当代表“一个新的邮件消息被接收到”的图标 301 被选中时，图标 301 就被从显示部分 12 处清除。

控制部分 14 确定一个接收到的邮件消息的信息是否已经从显示在显示部分 12 处的接收到的邮件消息的列表中被选中（在步骤 S405 处）。当确定的结果表示出一个接收到的邮件消息的信息没有被选中（即，在步骤 S405 处确定的结果是‘否’）时，显示部分 12 仍显示接收到的邮件消息的列表（在步骤 S404 处）。

当确定的结果表示出一个特定邮件消息的信息已经被选中（即，在步骤 S405 处确定的结果是‘是’）时，显示部分 12 就显示被选定的接收到的邮件消息的细节（在步骤 S406 处）。

选定的接收到的邮件消息的细节被显示后，控制部分 14 就确定操作部分 11 是否请求生成对接收到的邮件消息的一个答复邮件消息（在步骤 S407 处）。

当确定的结果表示出操作部分 11 已经请求生成了对接收到的邮件消息的一个答复邮件消息（即，在步骤 S407 处确定的结果是‘是’）时，显示部分 12 就显示一个答复邮件消息生成屏幕（在步骤 S408 处）。控制部分 14 确定一个答复邮件消息是否已被生成（在步骤 S409 处）。当确定的结果表示出一个答复邮件消息没有被生成（即，在步骤 S409 处确定的结果是‘否’）时，显示部分 12 仍显示答复邮件消息生成屏幕（在步骤 S408 处）。

当确定的结果表示出一个答复邮件消息已经被生成(即,在步骤 S409 处确定的结果是‘是’)时,发送/接收部分 16 就将生成的答复邮件消息发送给已发送初始邮件消息的终端单元。被发送的答复邮件消息被记录到存储器 17 中(在步骤 S410 处)。答复邮件消息被记录后,自动对收到的邮件消息进行分类的设备的答复操作就完成了。

当确定的结果表示出操作部分 11 没有请求生成一个答复邮件消息(即,在步骤 S407 处确定的结果是‘否’)时,控制部分 14 就确定操作部分 11 是否请求以一个语音通信执行一个回叫(在步骤 S411 处)。当确定的结果表示出操作部分 11 没有请求执行一个回叫(即,在步骤 S411 处确定的结果是‘否’)时,自动对收到的邮件消息进行分类的设备的答复操作就完成了。

当确定的结果表示出操作部分 11 已经请求执行一个回叫(即,在步骤 S411 处确定的结果是‘是’)时,控制部分 14 就确定接收到的邮件消息的发送者邮件地址是否包含一个发送者电话号码的信息(在步骤 S412 处)。当确定的结果表示出发送者邮件地址包含一个发送者电话号码(即,在步骤 S412 处确定的结果是‘是’)时,输入/输出部分 15 和发送/接收部分 16 就执行一个对应发送者电话号码的语音通信(在步骤 S414 处)。语音通信完成后,自动对收到的邮件消息进行分类的设备的答复操作就完成了。

当确定的结果表示出接收到的邮件消息的发送者邮件地址不包含一个发送者电话号码(即,在步骤 S412 处确定的结果是‘否’)时,控制部分 14 就确定对应接收到的邮件消息的发送者邮件地址的电话号码的信息是否包含在记录于存储器 17 中的电子电话目录数据中(在步骤 S413 处)。

当确定的结果表示出发送者电话号码的信息没有包含在电子电话目录数据中(即,在步骤 S413 处确定的结果是‘否’)时,自动对收到的邮件消息进行分类的设备的答复操作就完成了。

当确定的结果表示出发送者电话号码的信息被包含在电子电话目录数据中(即,在步骤 S413 处确定的结果是‘是’)时,输入/输出部分 15 和发送/接收部分 16 就执行一个对应发送者电话号码的语音通信(在步骤 S414 处)。语音通信完成后,自动对收到的邮件

消息进行分类的设备的答复操作就完成了。

图-5 是一个示意性方框图，示出记录在按照本发明实施方案的自动对收到的邮件消息进行分类的设备的存储器 17 中并被显示在显示部分 12 处的时间表数据。接下来，参考图-5，将对按照实施方案的时间表数据进行描述。

示于图-5 的时间表数据具有字段“时间”、“时间表”以及“响应”。在一个从 10 点到 12 点的时区中，字段“时间表”和“响应”是代表用户不能响应一个邮件消息的“时间表：正在访问一个客户”和“响应：不可能”。在一个从 13 点到 15 点的时区中，字段“时间表”和“响应”是“时间表：正在参加一个重要会议（第一会议室）”和“响应：不可能”。字段“时间表”可以包含有关用户将要去的一个位置的数据（例如，第一会议室）。

按照实施方案，时间表数据被制成表格。可替换地，时间表数据可以以另一种形式被显示。除此以外，按照实施方案，时间表数据的字段可以是“时间”、“时间表”以及“响应”。时间表数据的字段还可以是不同于这些字段的字段。

图-6 是一个示意性方框图，示出按照本发明实施方案的自动对收到的邮件消息进行分类的设备对一个接收到的邮件消息进行分类的操作。接下来参考图-5 和图-6，将对自动对收到的邮件消息进行分类的设备对接收到的邮件消息进行分类的操作进行描述。

参考图-6，显示部分 12 显示接收到的邮件消息 601 到 603 或显示一个答复邮件消息 606。接收到的邮件消息对应电子电话目录数据 604 以及记录在存储器 17 中的重要的关键字数据 605 被分类。

电子电话目录数据 604 具有字段“邮件地址”、“用户名”、“电话号码”以及“重要性”。当一个接收到的邮件消息的发送者邮件地址被指定为“重要性：高”时，接收到的邮件消息就被认为是一个重要的邮件消息。电子电话目录数据可以包含其它字段。

重要的关键字数据 605 具有关键字“重要的”、“急迫的”以及“紧急的”。当一个接收到的邮件消息的主题包含这些关键字中的一个时，该接收到的邮件消息就被认为是一个重要的邮件消息。重要的关键字数据可以具有其它关键字。

一个答复邮件消息的内容依赖时间表数据。例如，示于图-6 中

的答复邮件消息 606 包含用户所在一个当前位置的信息（第一会议室）、用户不能响应一个接收到的邮件消息的原因（正在参加一个重要会议）、以及用户不能响应一个接收到的邮件消息的时间段（一直到 15 点）。一个答复邮件消息可以包含其它条目。

5 接下来，参考图-5 和图-6，将对邮件消息 601 到 603 在从 13 点到 15 点的一个时区内被接收到的情况进行描述。

当发送/接收部分 16 接收到邮件消息 601 时，控制部分 14 就在存储器 17 中查找数据。控制部分 14 选取在电子电话目录数据中被指定为“重要性：高”的接收到的邮件消息 601 的发送者邮件地址。
10 这样，控制部分 14 认为接收到的邮件消息 601 是一个重要的邮件消息并生成答复邮件消息 606。生成的答复邮件消息 606 被发送给接收到的邮件消息 601 的发送者邮件地址“AAA@BBB.ne.jp”。答复邮件消息被发送后，显示部分 12 就显示一个代表“一个答复邮件消息已经被自动发送”的图标。

15 当发送/接收部分 16 接收到邮件消息 602 时，控制部分 14 就在电子电话目录数据 604 中查找并检查接收到的邮件消息 602 的发送者邮件地址在电子电话目录数据 604 中没有被指定为“重要性：高”。之后，控制部分 14 就查找重要的关键字数据 605。接收到的邮件消息 602 的主题是包含一个重要关键字“重要的”的“重要报告”。这样，控制部分 14 认为接收到的邮件消息 602 是一个重要的邮件消息
20 并生成答复邮件消息 606。生成的答复邮件消息 606 被发送给接收到的邮件消息 602 的发送者邮件地址“SSS@TTT.ne.jp”。答复邮件消息被发送后，显示部分 12 就显示一个代表“一个答复邮件消息已经被自动发送”的图标。

25 当发送/接收部分 16 接收到邮件消息 603 时，控制部分 14 就在电子电话目录数据 604 中查找并检查接收到的邮件消息 603 的发送者邮件地址在电子电话目录数据 604 中没有被指定为“重要性：高”。之后，控制部分 14 就查找重要的关键字数据 605。接收到的邮件消息 603 的主题是没有包含任何重要的关键字的“会议”。这样，控制部分 14 认为接收到的邮件消息 603 是一个不重要的邮件消息。
30 当接收到的邮件消息被认为是一个不重要的邮件消息时，显示部分 12 就显示一个代表“一个新的邮件消息被接收到”的图标。

并不总是需要在存储器 17 中记录（注册）电子电话目录数据、时间表数据、重要的关键字数据、以及其它的数据。可替换地，它们可以被记录（注册）到另一种记录媒体中。当需要时，它们可以通过网络下载。

- 5 上面描述的自动对收到的邮件消息进行分类的设备可以是一个移动通信终端单元例如一个蜂窝电话。可替换地，该设备可以是另一种终端单元。按照前述的实施方案，显示部分 12 显示表示“一个新的邮件消息被接收到”的图标 301，表示“需要一个立即响应”的图标 302，以及表示“一个答复邮件消息已经被自动发送”的图标 303。可替换地，图标 302 可以显示其它图标。除此之外，显示部分 12 可以显示图标之外的对象。

- 15 按照前述的实施方案，确定了一个接收到的邮件消息的发送者邮件地址或者包含在其主题内的特征是否被注册到存储器 17。对应确定的结果，一个答复邮件消息被发送或者一个预定义的图标被显示。可替换地，除发送者邮件地址和主题外，包含在几个部分中的特征信息，例如一个邮件主体、一个附件可以被确定。此外，除特征信息外，对应包含在一个接收到的邮件消息中的例如一个图片、一个语音的其它信息，一个答复邮件消息被发送或一个预定义的图标被显示。

- 20 正如上面描述的，当加到一个接收到的邮件消息上的一个发送者邮件地址或者包含在一个接收到的邮件消息的主题中的一个预定义的关键字被注册到存储器中并且当邮件消息在一个其中时间表数据被指定为“响应：不可能”的时区内被接收到时，在邮件消息被接收到后，对其的一个答复邮件消息被很快生成并被发送给所收邮件消息的发送者。这样，对被认为是一个重要的邮件消息的一个所收邮件消息可以很快采取一个响应。

- 30 除此之外，当加到一个接收到的邮件消息上的一个发送者邮件地址或者包含在一个接收到的邮件消息的主题中的一个预定义关键字已经被注册到存储器中并且当邮件消息在一个其中时间表数据被指定为“响应：可能”的时区内被接收到时，一个“需要一个立即响应”的消息以及一个告警声分别被周期性地显示并生成。结果是，可以防止对一个被认为是一个重要的邮件消息的一个所收邮件消息

的响应失败或被延迟。

尽管本发明已经参考其最佳模式的实施方案被示出及描述,本领域的那些技术人员应理解可以在形式上以及对其细节进行前述的以及不同的其它变化、省略、和添加而不脱离本发明的精神和范围。

5

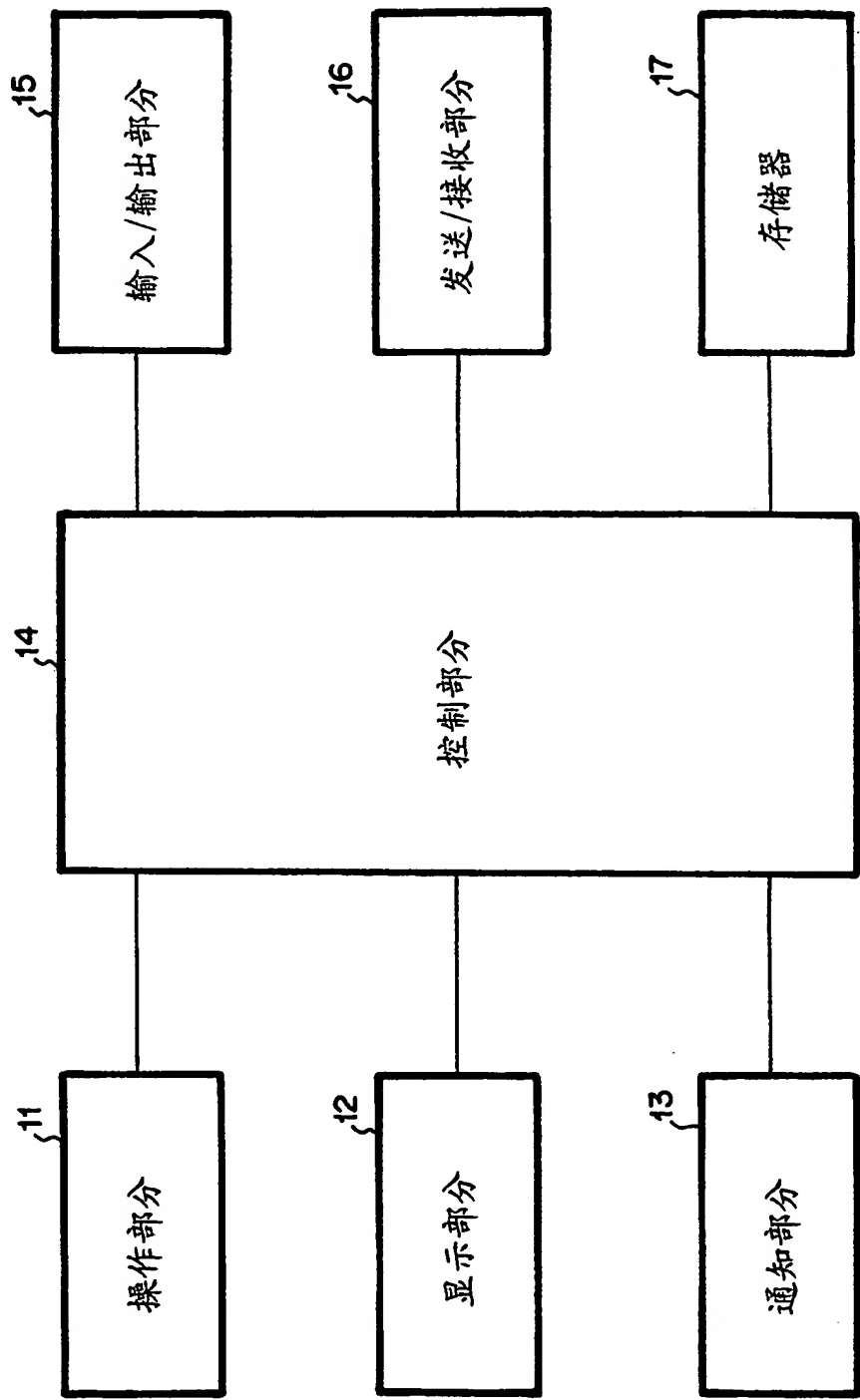


图 1

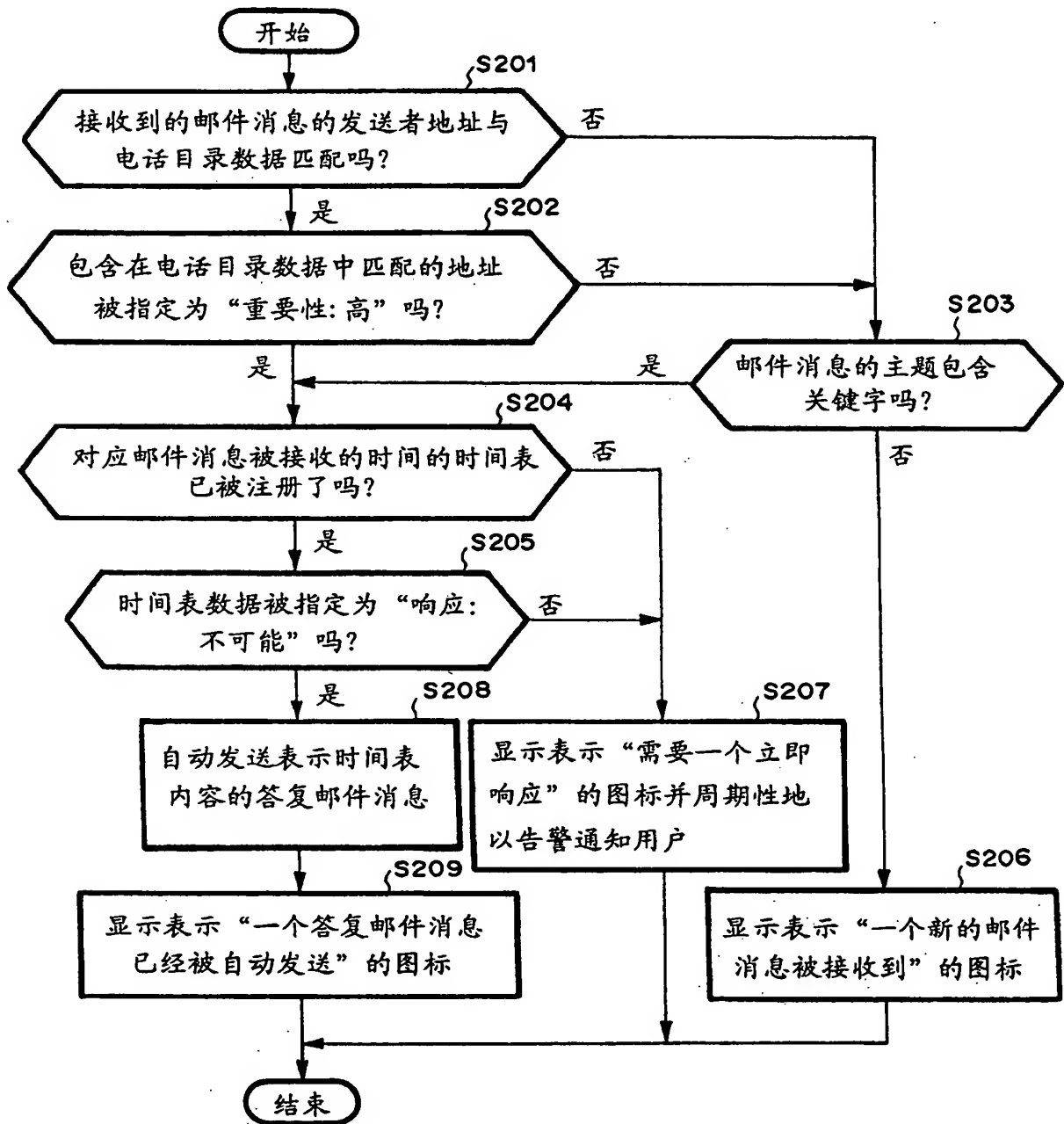


图 2

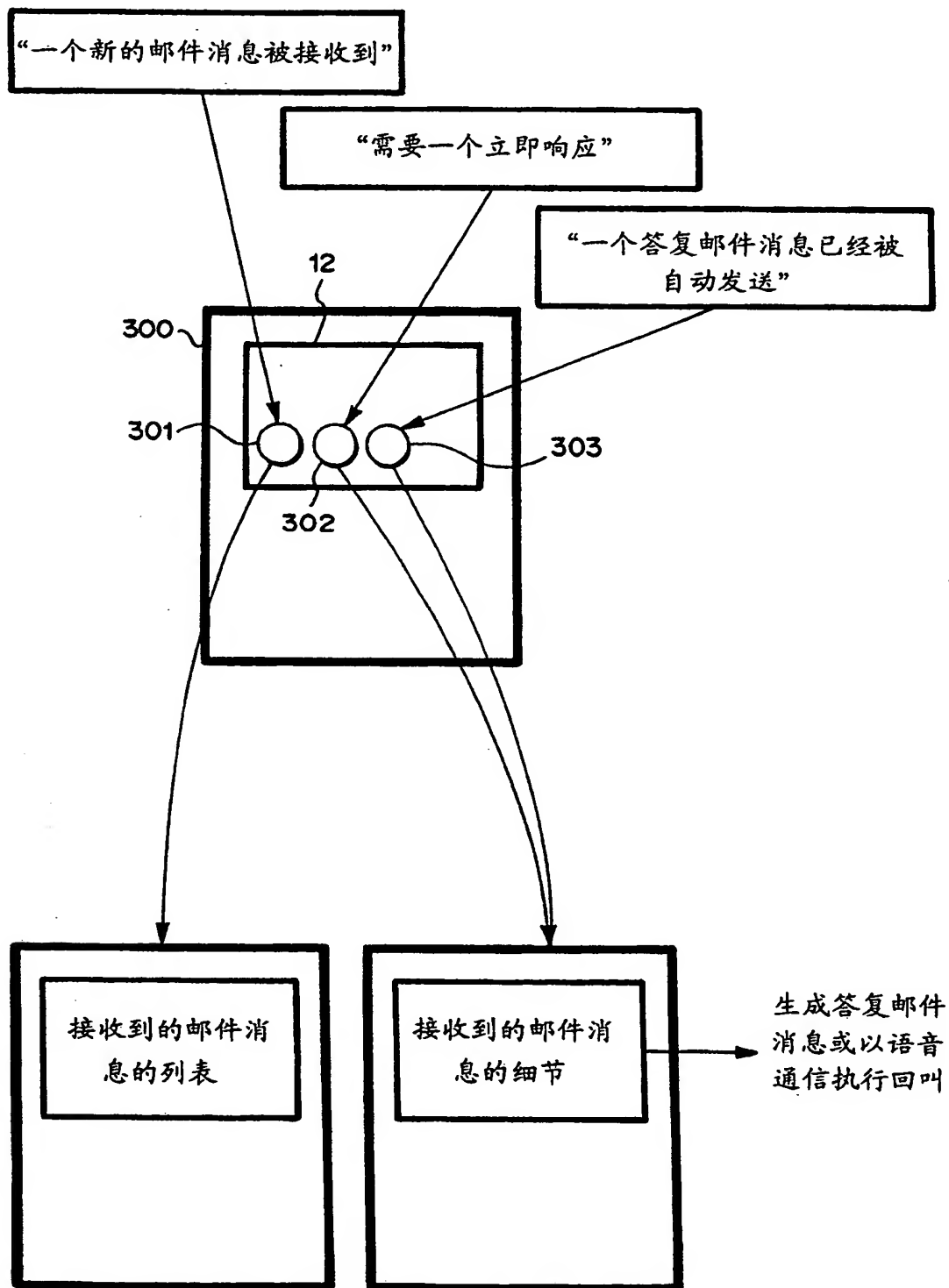


图 3

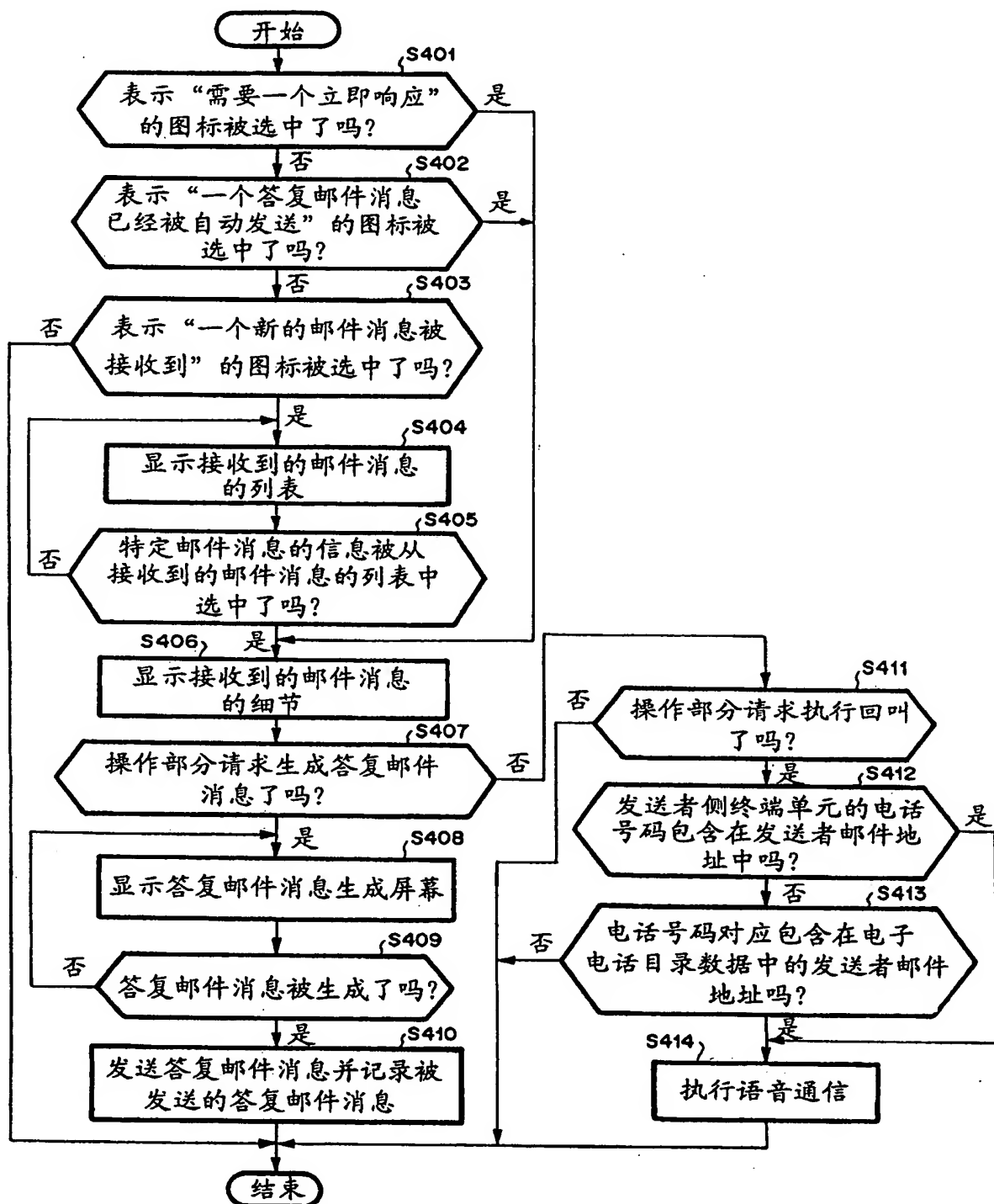


图 4

时间	时间表	响应
9	正常	可能
10	正在访问一个客户	不可能
12	正在休息	可能
13	正在参加一个重要会议 (第一会议室)	不可能
15	正常	可能
16	正在参加一个会议 (第二会议室)	可能
19	正常	可能

图 5

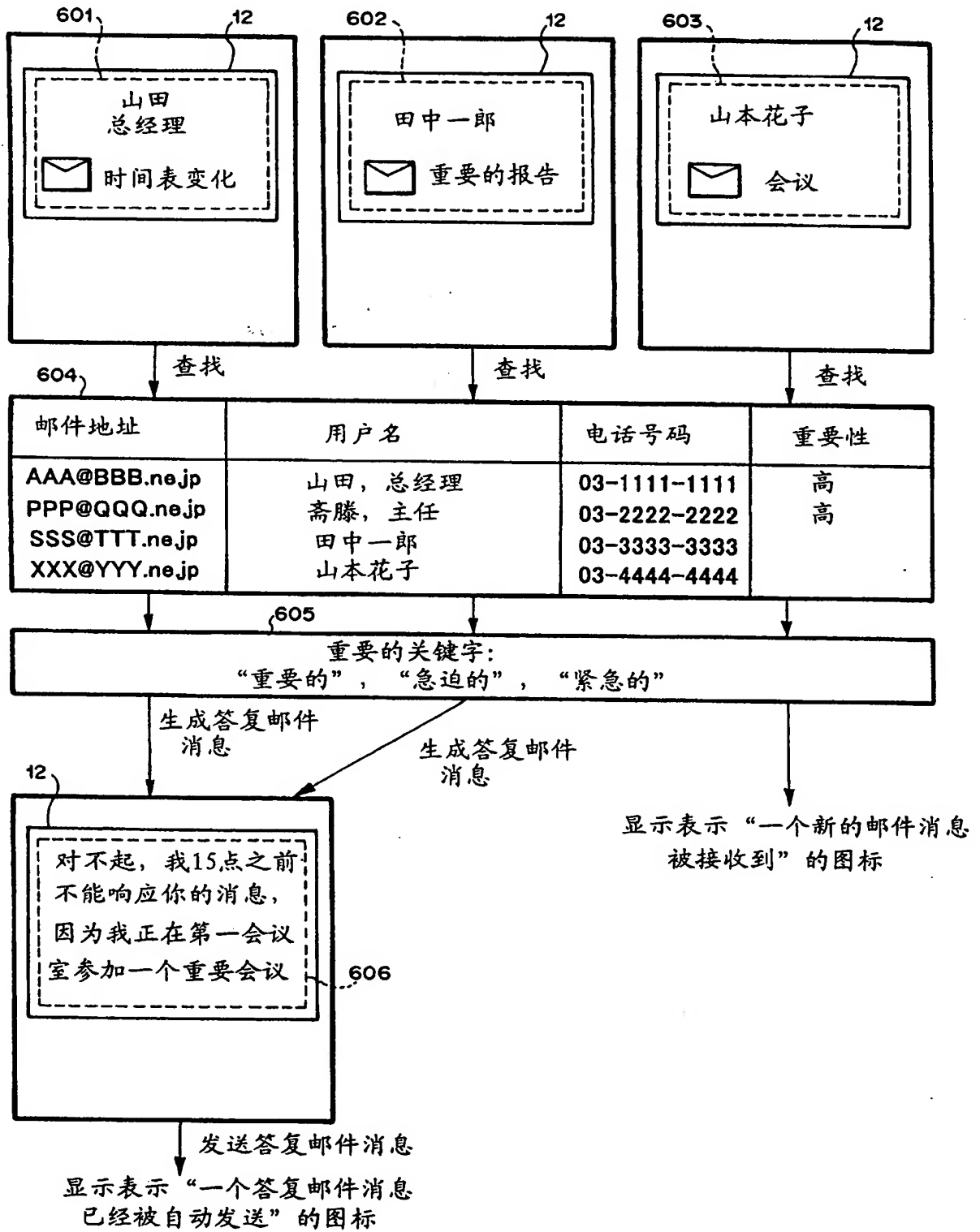






图 6

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Patent number: CN1383301
Publication date: 2002-12-04
Inventor: MISHINYA USA [JP]
Applicant: NIPPON ELECTRIC CO [JP]
Classification:
- international: H04L12/58; G06F13/00
- european: H04L12/58; H04M1/725F1M
Application number: CN20020118027 20020419
Priority number(s): JP20010122953 20010420

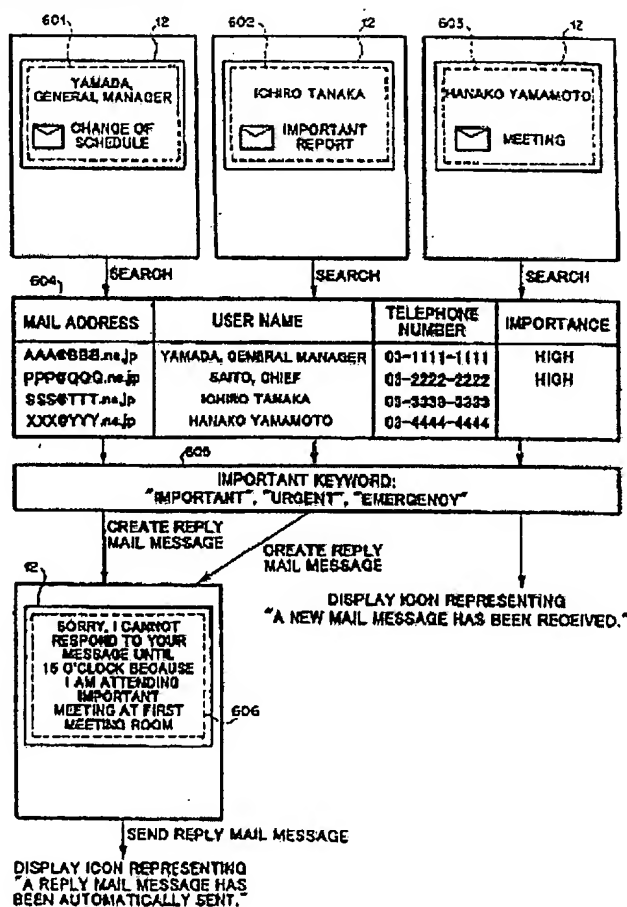
Also published as:

 US6721402 (B2)
 US2002154746 (A1)
 JP2002318770 (A)
 GB2376374 (A)

Abstract not available for CN1383301

Abstract of corresponding document: US2002154746

The present invention provides apparatus and method for automatically categorizing received mail messages. According to the apparatus and method, the importance of a received mail message is determined. Depending on the determined result, a reply mail message is sent. Alternatively, user is periodically notified of the received mail message. As a result, user can easily send a reply mail message or perform a callback. A controlling portion determines whether a sender mail address added to a received mail message or character information contained in a title of the received mail message has been registered with a memory. When the sender mail address or the character information has been registered, the received mail message is considered as an important mail message. Corresponding to schedule data recorded in the memory, a reply mail message is sent or user is notified of the received mail message using an audio alarm.



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BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates to an apparatus, method, and record medium for automatically categorizing received mail messages, in particular, to those for determining whether or not each received mail message is important and sending a reply mail message if it is determined that a mail message is important.

[0003] 2. Description of the Related Art

[0004] In recent years, mobile communication terminal units such as portable telephone units have been widely used for electronic mail messages as well as calls. In addition, a service for forwarding an electronic mail message addressed to a personal computer disposed in an office to a mobile communication terminal unit has been accomplished.

[0005] However, when electronic mail messages addressed to a personal computer are forwarded to a mobile communication terminal unit, the number of mail messages increases in the mobile communication terminal unit. As a result, the management of mail messages becomes complicated. In addition, the received mail messages include not only important messages, but also unimportant messages. Thus, it is difficult for the user to quickly check important mail messages and sent their reply mail messages.

SUMMARY OF THE INVENTION

[0006] An object of the present invention is to provide apparatus, method, and program for determining whether or not each received mail message is important and sending a reply corresponding to the determined result or periodically notifying the user of that as an alarm so that he or she can easily send a reply mail message to a received mail message or performing a callback.

[0007] According to the present invention, there is provided an automatic received mail categorizing apparatus, comprising: means for registering predetermined character information; and means for, if character information added to a received mail matches the registered character information, displaying that a mail which includes the registered character information has been received.

[0008] The automatic received mail categorizing apparatus may further comprise: means for, if a mail address of a sender of the received mail matches the registered character information, displaying that the mail which includes the registered character information has been received.

[0009] The automatic received mail categorizing apparatus may further comprise: means for, if character information included in a title of the received mail matches the registered character information, displaying that the mail which includes the registered character information has been received.

[0010] The automatic received mail categorizing apparatus may further comprise: means for registering a schedule of a user; and means for, after receiving the mail, determining, on the basis of the schedule, whether or not it is possible to respond to the mail.

[0011] The automatic received mail categorizing apparatus may further comprise:

been received.

[0012] The automatic received mail categorizing apparatus may further comprise: means for, if it is determined, on the basis of the schedule after receiving the mail, that it is impossible to respond to the mail, creating a response mail responding to the received mail and sending the response mail to a sender of the received mail.

[0013] The automatic received mail categorizing apparatus may further comprise: means for, after sending the response mail, displaying that the response mail has been sent.

[0014] The automatic received mail categorizing apparatus may further comprise: means for, displaying with an icon that the mail which contains the registered character information has been received and that the response mail has been sent.

[0015] The automatic received mail categorizing apparatus may further comprise: means for, after the icon has been selected, displaying a simplified information list which does not include a body of the received mail or detailed information which includes the body of the received mail.

[0016] The automatic received mail categorizing apparatus may further comprise: means for, after a predetermined display region of the displayed detailed information is selected, displaying a screen for creating another response mail responding to the received mail of which detailed information is displayed.

[0017] The automatic received mail categorizing apparatus may further comprise: means for, after a predetermined display region of the displayed detailed information is selected, performing callback to a sender of the received mail of which detailed information is displayed.

[0018] These and other objects, features and advantages of the present invention will become more apparent in light of the following detailed description of a best mode embodiment thereof, as illustrated in the accompanying drawings.

BRIEF DESCRIPTION OF DRAWINGS

[0019] FIG. 1 is a schematic diagram showing the structure of an automatic received mail message categorizing apparatus according to an embodiment of the present invention;

[0020] FIG. 2 is a flow chart showing a received mail message categorizing operation of the automatic received mail message categorizing apparatus according to the embodiment of the present invention;

[0021] FIG. 3 is a schematic diagram showing icons of the automatic received mail message categorizing apparatus according to the embodiment of the present invention;

[0022] FIG. 4 is a flow chart showing a reply mail message creating operation of the automatic received mail message categorizing apparatus according to the embodiment of the present invention;

[0023] FIG. 5 is a schematic diagram showing schedule data recorded in a memory of the automatic received mail message categorizing apparatus according to the embodiment of the present invention; and

[0024] FIG. 6 is a schematic diagram showing the received mail message categorizing operation of the automatic received mail message categorizing apparatus according to the embodiment of the present invention.

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received mail message categorizing apparatus. Next, with reference to FIG. 1, the structure of the automatic received mail message categorizing apparatus according to the embodiment of the present invention will be described.

[0026] The automatic received mail message categorizing apparatus has an operating portion 11, a displaying portion 12, a notifying portion 13, a controlling portion 14, an inputting/outputting portion 15, a sending/receiving portion 16, and a memory 17.

[0027] The operating portion 11 allows the user to perform an inputting operation for the automatic received mail message categorizing apparatus. When the user edits (creates) a mail message, he or she performs a character inputting operation with the operating portion 11. The character data that is input with the operating portion 11 is displayed on the displaying portion 12 and recorded to the memory 17. The displaying portion 12 displays the state of the automatic received mail message categorizing apparatus, predetermined information, iconized alarms, and so forth.

[0028] The sending/receiving portion 16 performs sending and receiving in radio communications such as voice communications and sending and receiving of electronic mail messages. The memory 17 stores mail messages received by the sending/receiving portion 16 and mail messages created by the operating portion 11. In addition, the memory 17 stores electronic telephone directory data that contains information such as user name, telephone numbers, electronic mail addresses, and so forth. The user designates "importance: high" to important mail address information of the electronic telephone directory data. The memory 17 also stores predetermined information such as user's schedule data, settings, and so forth. The schedule data is data of user's schedule in a predetermined period. The user designates "response: impossible" to schedule data in a time zone in which the user cannot respond to a call nor a mail message.

[0029] The notifying portion 13 notifies the user of an incoming call received by the sending/receiving portion 16. In addition, the notifying portion 13 notifies the user of a state change in the automatic received mail message categorizing apparatus. Moreover, when a mail message is received, the notifying portion 13 notifies the user of that. The inputting/outputting portion 15 inputs and outputs a sound.

[0030] The controlling portion 14 controls each portion of the automatic received mail message categorizing apparatus. When a mail message is received from a sender side terminal unit, the controlling portion 14 searches for the electronic telephone directory data or the schedule data recorded in the memory 17 corresponding to information contained in the received mail message recorded in the memory 17. When the searched result represents that the received mail message satisfies a predetermined condition, the controlling portion 14 creates a reply mail message. The sending/receiving portion 16 sends the created reply mail message to the sender side terminal unit.

[0031] When the searched result represents that the condition for sending a reply mail message is not satisfied, the displaying portion 12 displays an icon, a message, or the like that represents that the condition is not satisfied. In addition to the displaying operation of the displaying portion 12, the notifying portion 13 notifies the user that the condition is not satisfied.

[0032] After the displaying portion 12 and the notifying portion 13 have performed the respective operations, when the user selects an icon, a message, or the like

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received mail message on the displaying portion 12. Thereafter, the user performs a voice communication and sends a mail message using the inputting/outputting portion 15 and the sending/receiving portion 16.

[0033] FIG. 2 is a flow chart showing the received mail message categorizing operation of the automatic received mail message categorizing apparatus according to the embodiment of the present invention. Next, with reference to FIG. 1, corresponding to the flow chart of FIG. 2, the received mail message categorizing operation of the automatic received mail message categorizing apparatus according to the embodiment of the present invention will be described.

[0034] When the sending/receiving portion 16 receives a mail message, the controlling portion 14 searches the electronic telephone directory data for the sender mail address and determines whether or not the sender mail address matches an address contained in the electronic telephone directory data (at step S201).

[0035] When the determined result represents that the sender mail address matches an address contained in the electronic telephone directory data (namely, the determined result at step S201 is Yes), the controlling portion 14 determines whether or not the matched address contained in the electronic telephone directory data has been designated "importance: high" (at step S202).

[0036] When the determined result represents that the matched address contained in the electronic telephone directory data has not been designated "importance: high" (namely, the determined result at step S202 is No) or when the determined result represents that the sender mail address does not match any address contained in the electronic telephone directory data (namely, the determined result at step S201 is No), the controlling portion 14 determines whether or not the title of the received mail message contains one of received mail message categorizing keywords registered with the memory 17 (at step S203).

[0037] When the determined result represents that the title of the received mail message does not contain any keyword (namely, the determined result at step S203 is No), the displaying portion 12 displays an icon that represents that "A new mail message has been received." (at step S206). Thereafter, the received mail message categorizing operation is completed.

[0038] In this example, after the icon that represents that "A new mail message has been received." has been displayed, even if a further mail message that satisfies the icon displaying condition is received, the number of icons that are displayed does not increase. In other words, only one icon is displayed.

[0039] When the determined result represents that the matched address contained in the electronic telephone directory data has been designated "importance: high" (namely, the determined result at step S202 is Yes) or when the determined result represents that the title of the received mail message contains a keyword (namely, the determined result at step S203 is Yes), the controlling portion 14 searches the memory 17 for schedule data corresponding to the time at which the mail message has been received and determines whether or not the schedule data corresponding to the time at which the mail message has been received has been recorded in the memory 17 (at step S204).

[0040] When the determined result represents that the schedule data corresponding to the time at which the mail message has been received had not been recorded in the memory 17 (namely, the determined result at step S204 is No), the displaying portion 12 displays an icon that represents that "An immediate response is required.". In addition to the icon that represents that "An immediate response is

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S207). After the user has been notified, the received mail message categorizing operation of the automatic received mail message categorizing apparatus is completed.

[0041] After the icon that represents "An immediate response is required." has been displayed, when a mail message that satisfies the displaying condition is received, the number of icons displayed on the displaying portion 12 correspondingly increases. When the number of icons displayed on the displaying portion 12 exceeds a predetermined number registered with the memory 17, icons that exceed the predetermined number are erased in the order beginning from older mail messages on the displaying portion 12.

[0042] When the determined result represents that the schedule data corresponding to the time at which the mail message has been received had been recorded in the memory 17 (namely, the determined result at step S204 is Yes), the controlling portion 14 determines whether or not the schedule data corresponding to the time at which the mail message has been received had been designated "response: impossible" (at step S205).

[0043] When the determined result represents that the schedule data corresponding to the time at which the mail message has been received had not been designated "response: impossible" (in other words, the schedule data had been designated "response: possible") (namely, the determined result at step S205 is No), the displaying portion 12 displays an icon that represents that "An immediate response is required." (at step S207). Thereafter, the received mail message categorizing operation is completed.

[0044] When the determined result represents that the schedule data corresponding to the time at which the mail message has been received had been designated "response: impossible" (namely, the determined result at step S205 is Yes), a reply mail message whose content is "Now attending a conference.", "Now visiting a client." or the like is created. The sending/receiving portion 16 sends the created reply mail message to the terminal unit that has sent an original mail message (at step S208). The reply mail message that has been sent is recorded in the memory 17.

[0045] After the reply mail message has been sent, the displaying portion 12 displays an icon that represents "A reply mail message has been automatically sent." (at step S209). After the icon that represents "A reply mail message has been automatically sent." has been displayed, the received mail message categorizing operation of the automatic received mail message categorizing apparatus is completed.

[0046] FIG. 3 is a schematic diagram showing icons of the automatic received mail message categorizing apparatus according to the embodiment of the present invention. Next, with reference to FIG. 3, a mail message displaying operation according to the embodiment of the present invention will be described. After the icons have been displayed, the mail message displaying operation is performed.

[0047] As shown in FIG. 3, the displaying portion 12 of the automatic received mail message categorizing apparatus 300 displays an icon 301 that represents "A new mail message has been received.", an icon 302 that represents "An immediate response is required.", and an icon 303 that represents "A reply mail message has been automatically sent.".

[0048] When the icon 301 that represents "A new mail message has been received." is selected on the displaying portion 12, the displaying portion 12 displays a list of

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"A reply mail message has been automatically sent." is selected, the detail of the received mail message corresponding to the selected icon is displayed. Corresponding to the detail of the received mail message, a reply mail message in response to the received mail message is created or a callback as a voice communication is performed.

[0049] FIG. 4 is a flow chart showing a replying operation of the automatic received mail message categorizing apparatus according to the embodiment of the present invention. Next, with reference to FIG. 3, corresponding to the flow chart shown in FIG. 4, the replying operation of the automatic received mail message categorizing apparatus according to the embodiment of the present invention will be described. After one or more icons have been displayed, the replying operation is performed.

[0050] The controlling portion 14 determines whether or not the icon 302 that represents "An immediate response is required." has been selected from icons displayed on the displaying portion 12 (at step S401). When the determined result represents that the icon 302 that represents "An immediate response is required." has been selected (namely, the determined result at step S401 is Yes), the detail of the received mail message corresponding to the icon 302 that represents "An immediate response is required." is displayed on the displaying portion 12 (at step S406). When the icon 302 that represents "An immediate response is required." is selected, the icon 302 is erased from the displaying portion 12. In addition, the alarm is stopped.

[0051] When the determined result represents that the icon 302 that represents "An immediate response is required." has not been selected (namely, the determined result at step S401 is No), the controlling portion 14 determines whether or not the icon 303 that represents "A reply mail message has been automatically sent." has been selected (at step S402). When the determined result represents that the icon 303 that represents "A reply mail message has been automatically sent." has been selected (namely, the determined result at step S402 is Yes), the detail of the received mail message corresponding to the icon 303 that represents "A reply mail message has been automatically sent." is displayed on the displaying portion 12 (at step S406). When the icon 303 that represents "A reply mail message has been automatically sent." is selected, the icon 303 is erased from the displaying portion 12.

[0052] When the determined result represents that the icon 303 that represents "A reply mail message has been automatically sent." has not been selected (namely, the determined result at step S402 is No), the controlling portion 14 determines whether or not the icon 301 that represents "A new mail message has been received." has been selected (at step S403). When the determined result represents that the icon 301 that represents "A new mail message has been received." has not been selected (namely, the determined result at step S403 is No), the replying operation of the automatic received mail message categorizing apparatus is completed.

[0053] When the determined result represents that the icon 301 that represents "A new mail message has been received." has been selected (namely, the determined result at step S403 is Yes), the displaying portion 12 displays a list of received mail messages (at step S404). The list of received mail messages shows predetermined outlined information such as "sender user name" or "title" of each received mail message. When the icon 301 that represents "A new mail message has been

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received mail message has been selected from the list of the received mail messages displayed on the displaying portion 12 (at step S405). When the determined result represents that the information of one received mail message has not been selected (namely, the determined result at step S405 is No), the displaying portion 12 still displays the list of the received mail messages (at step S404).

[0055] When the determined result represents that information of a particular mail message has been selected (namely, the determined result at step S405 is Yes), the displaying portion 12 displays the detail of the selected received mail message (at step S406).

[0056] After the detail of the selected received mail message has been displayed, the controlling portion 14 determines whether or not the operating portion 11 has requested to create a reply mail message to the received mail message (at step S407).

[0057] When the determined result represents that the operating portion 11 has requested to create a reply mail message to the received mail message (namely, the determined result at step S407 is Yes), the displaying portion 12 displays a reply mail message creating screen (at step S408). The controlling portion 14 determines whether or not a reply mail message has been created (at step S409). When the determined result represents that a reply mail message has not been created (namely, the determined result at step S409 is No), the displaying portion 12 still displays the reply mail message creating screen (at step S408).

[0058] When the determined result represents that a reply mail message has been created (namely, the determined result at step S409 is Yes), the sending/receiving portion 16 sends the created reply mail message to the terminal unit that had sent the original mail message. The reply mail message that has been sent is recorded to the memory 17 (at step S410). After the reply mail message has been recorded, the replying operation of the automatic received mail message categorizing apparatus is completed.

[0059] When the determined result represents that the operating portion 11 has not requested to create a reply mail message (namely, the determined result at step S407 is No), the controlling portion 14 determines whether or not the operating portion 11 has requested to perform a callback as a voice communication (at step S411). When the determined result represents that the operating portion 11 has not requested to perform a callback (namely, the determined result at step S411 is No), the replying operation of the automatic received mail message categorizing apparatus is completed.

[0060] When the determined result represents that the operating portion 11 has requested to perform a callback (namely, the determined result at step S411 is Yes), the controlling portion 14 determines whether or not the sender mail address of the received mail message contains information of a sender telephone number (at step S412). When the determined result represents that the sender mail address contains a sender telephone number (namely, the determined result at step S412 is Yes), the inputting/outputting portion 15 and the sending/receiving portion 16 perform a voice communication corresponding to the sender telephone number (at step S414). After the voice communication has been completed, the replying operation of the automatic received mail message categorizing apparatus is completed.

[0061] When the determined result represents that the sender mail address of the received mail message does not contain a sender telephone number (namely, the determined result at step S412 is No), the controlling portion 14 determines

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directory data recorded in the memory 17 (at step S413).

[0062] When the determined result represents that the information of the sender telephone number is not contained in the electronic telephone directory data (namely, the determined result at step S413 is No), the replying operation of the automatic received mail message categorizing apparatus is completed.

[0063] When the determined result represents that the information of the sender telephone number is contained in the electronic telephone directory data (namely, the determined result at step S413 is Yes), the inputting/outputting portion 15 and the sending/receiving portion 16 perform a voice communication corresponding to the sender telephone number (at step S414). After the voice communication has been completed, the replying operation of the automatic received mail message categorizing apparatus is completed.

[0064] FIG. 5 is a schematic diagram showing schedule data recorded in the memory 17 and displayed on the displaying portion 12 of the automatic received mail message categorizing apparatus according to the embodiment of the present invention. Next, with reference to FIG. 5, schedule data according to the embodiment will be described.

[0065] The schedule data shown in FIG. 5 has fields "time", "schedule", and "response". In a time zone from 10 o'clock to 12 o'clock, the fields "schedule" and "response" are "schedule: visiting a client" and "response: impossible" representing that the user cannot respond to a mail message. In a time zone from 13 o'clock to 15 o'clock, the fields "schedule" and "response" are "schedule: attending an important meeting (first meeting room)" and "response: impossible". The field "schedule" may contain data on a place where the user will be (for example, first meeting room).

[0066] According to the embodiment, schedule data is tabulated. Alternatively, schedule data may be displayed in another form. In addition, according to the embodiment, the fields of the schedule data are "time", "schedule", and "response". The fields of the schedule data may be other than those.

[0067] FIG. 6 is a schematic diagram showing a received mail message categorizing operation of the automatic received mail message categorizing apparatus according to the embodiment. Next, with reference to FIGS. 5 and 6, the received mail message categorizing operation of the automatic received mail message categorizing apparatus will be described.

[0068] Referring to FIG. 6, the displaying portion 12 displays received mail messages 601 to 603 or a reply mail message 606. The received mail messages are categorized corresponding to electronic telephone directory data 604 and important keyword data 605 recorded in the memory 17.

[0069] The electronic telephone directory data 604 has fields "mail address", "user name", "telephone number", and "importance". When the sender mail address of a received mail message has been designated "importance: high", the received mail message is recognized as an important mail message. The electronic telephone directory data may contain other fields.

[0070] The important keyword data 605 has keywords "important", "urgent", and "emergency". When the title of a received mail message contains one of those keywords, the received mail message is recognized as an important mail message. The important keyword data may have other keywords.

[0071] The content of a reply mail message depends on schedule data. For example, the reply mail message 606 shown in FIG. 6 contains information of a current place

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cannot respond to a received mail message (up to 15 o'clock). A reply mail message may contain other items.

[0072] Next, with reference to FIGS. 5 and 6, the case that the mail messages 601 to 603 are received in a time zone from 13 o'clock to 15 o'clock will be described.

[0073] When the sending/receiving portion 16 receives the mail message 601, the controlling portion 14 searches the memory 17 for data. The controlling portion 14 checks that the sender mail address of the received mail message 601 has been designated "importance: high" in the electronic telephone directory data. Thus, the controlling portion 14 recognizes the received mail message 601 as an important mail message and creates the reply mail message 606. The created reply mail message 606 is sent to the sender mail address "AAA@BBB.ne.jp" of the received mail message 601. After the reply mail message has been sent, the displaying portion 12 displays an icon that represents that "A reply mail message has been automatically sent."

[0074] When the sending/receiving portion 16 receives the mail message 602, the controlling portion 14 searches the electronic telephone directory data 604 and checks that the sender mail address of the received mail message 602 has not been designated "importance: high" in the electronic telephone directory data 604. Thereafter, the controlling portion 14 searches the important keyword data 605. The title of the received mail message 602 is "important report" that contains an important keyword "important". Thus, the controlling portion 14 recognizes the received mail message 602 as an important mail message and creates the reply mail message 606. The created reply mail message 606 is sent to the sender mail address "SSS@TTT.ne.jp" of the received mail message 602. After the reply mail message has been sent, the displaying portion 12 displays an icon that represents that "A reply mail message has been automatically sent."

[0075] When the sending/receiving portion 16 receives the mail message 603, the controlling portion 14 searches the electronic telephone directory data 604 and checks that the sender mail address of the received mail message 603 has not been designated "importance: high" in the electronic telephone directory data 604. Thereafter, the controlling portion 14 searches the important keyword data 605. The title of the received mail message 603 is "meeting" that does not contain any important keyword. Thus, the controlling portion 14 recognizes the received mail message 603 as an unimportant mail message. When the received mail message is recognized as an unimportant mail message, the displaying portion 12 displays an icon that represents that "A new mail message has been received."

[0076] It is not always necessary to record (register) electronic telephone directory data, schedule data, important keyword data, and other data in the memory 17. Alternatively, they may be recorded (registered) to another record medium. When necessary, they may be downloaded through a network.

[0077] The above-described automatic received mail message categorizing apparatus may be a mobile communication terminal unit such as a cellular phone. Alternatively, the apparatus may be another terminal unit. According to the forgoing embodiment, the displaying portion 12 displays the icon 301 that represents "A new mail message has been received.", the icon 302 that represents "An immediate response is required.", and the icon 303 that represents "A reply mail message has been automatically sent.". Alternatively, the icon 302 may display other icons. In addition, the displaying portion 12 may display objects other than icons.

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have been registered with the memory 17. Corresponding to the determined result, a reply mail message is sent or a predetermined icon is displayed. Alternatively, character information contained in portions, such as a mail body, an attached file, other than the sender mail address and the title may be determined. In addition, a reply mail message may be sent or a predetermined icon may be displayed corresponding to information, such as a picture, a voice, other than character information contained in a received mail message.

[0079] As was described above, when a sender mail address added to a received mail message or a predetermined keyword contained in a title of a received mail message has been registered with the memory and when the mail message is received in a time zone in which schedule data has been designated "response: impossible", after the mail message is received, a reply mail message thereto is quickly created and sent to the sender of the received mail message. Thus, a response can be quickly taken for a received mail message considered as an important mail message.

[0080] In addition, when a sender mail address added to a received mail message or a predetermined keyword contained in a title of a received mail message has been registered with the memory and when the mail message is received in a time zone in which schedule data has been designated "response: possible", a message "An immediate response is required." and an alarm sound are periodically displayed and generated, respectively. As a result, a response to a received mail message considered as an important mail message can be prevented from being failed or delayed.

[0081] Although the present invention has been shown and described with respect to the best mode embodiment thereof, it should be understood by those skilled in the art that the foregoing and various other changes, omissions, and additions in the form and detail thereof may be made therein without departing from the spirit and scope of the present invention.

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Claims of corresponding document: US2002154746

What is claimed is:

1. An automatic received mail categorizing apparatus, comprising:
means for registering predetermined character information; and
means for, if character information added to a received mail matches the registered character information, displaying that a mail which includes the registered character information has been received.
2. The automatic received mail categorizing apparatus as set forth in claim 1,
further comprising:
means for, if a mail address of a sender of the received mail matches the registered character information, displaying that the mail which includes the registered character information has been received.
3. The automatic received mail categorizing apparatus as set forth in claim 1,
further comprising:
means for, if character information included in a title of the received mail matches the registered character information, displaying that the mail which includes the registered character information has been received.
4. The automatic received mail categorizing apparatus as set forth in claim 1,
further comprising:
means for registering a schedule of a user; and
means for, after receiving the mail, determining, on the basis of the schedule, whether or not it is possible to respond to the mail.
5. The automatic received mail categorizing apparatus as set forth in claim 4,
further comprising:
means for, if it is determined, on the basis of the schedule after receiving the mail, that it is possible to respond to the mail, notifying with a sound that the mail has been received.
6. The automatic received mail categorizing apparatus as set forth in claim 4,
further comprising:
means for, if it is determined, on the basis of the schedule after receiving the mail, that it is impossible to respond to the mail, creating a response mail responding to the received mail and sending the response mail to a sender of the received mail.
7. The automatic received mail categorizing apparatus as set forth in claim 6,
further comprising:
means for, after sending the response mail, displaying that the response mail has been sent.
8. The automatic received mail categorizing apparatus as set forth in claim 7,

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character information has been received and that the response mail has been sent.

9. The automatic received mail categorizing apparatus as set forth in claim 8, further comprising:

means for, after the icon has been selected, displaying a simplified information list which does not include a body of the received mail or detailed information which includes the body of the received mail.

10. The automatic received mail categorizing apparatus as set forth in claim 9, further comprising:

means for, after a predetermined display region of the displayed detailed information is selected, displaying a screen for creating another response mail responding to the received mail of which detailed information is displayed.

11. The automatic received mail categorizing apparatus as set forth in claim 9, further comprising:

means for, after a predetermined display region of the displayed detailed information is selected, performing callback to a sender of the received mail of which detailed information is displayed.

12. An automatic received mail categorizing method, comprising the steps of: registering predetermined character information; and

if character information added to a received mail matches the registered character information, displaying that a mail which includes the registered character information has been received.

13. The automatic received mail categorizing method as set forth in claim 12, further comprising the step of:

if a mail address of a sender of the received mail matches the registered character information, displaying that the mail which includes the registered character information has been received.

14. The automatic received mail categorizing method as set forth in claim 12, further comprising the step of:

if character information included in a title of the received mail matches the registered character information, displaying that the mail which includes the registered character information has been received.

15. The automatic received mail categorizing method as set forth in claim 12, further comprising the steps of:

registering a schedule of a user; and

after receiving the mail, determining, on the basis of the schedule, whether or not it is possible to respond to the mail.

16. The automatic received mail categorizing method as set forth in claim 15, further comprising the step of:

if it is determined, on the basis of the schedule after receiving the mail, that it is possible to respond to the mail, notifying with a sound that the mail has been received.

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further comprising the step of:
if it is determined, on the basis of the schedule after receiving the mail, that it is impossible to respond to the mail, creating a response mail responding to the received mail and sending the response mail to a sender of the received mail.

18. The automatic received mail categorizing method as set forth in claim 17, further comprising the step of:
after sending the response mail, displaying that the response mail has been sent.

19. The automatic received mail categorizing method as set forth in claim 18, further comprising the step of:
displaying with an icon that the mail which contains the registered character information has been received and that the response mail has been sent.

20. The automatic received mail categorizing method as set forth in claim 19, further comprising the step of:
after the icon has been selected, displaying a simplified information list which does not include a body of the received mail or detailed information which includes the body of the received mail.

21. The automatic received mail categorizing method as set forth in claim 20, further comprising the step of:
after a predetermined display region of the displayed detailed information is selected, displaying a screen for creating another response mail responding to the received mail of which detailed information is displayed.

22. The automatic received mail categorizing method as set forth in claim 20, further comprising the step of:
after a predetermined display region of the displayed detailed information is selected, performing callback to a sender of the received mail of which detailed information is displayed.

23. A record medium on which there is recorded a program for causing a computer perform an automatic received mail categorizing method, said method comprising the steps of:
registering predetermined character information; and
if character information added to a received mail matches the registered character information, displaying that a mail which includes the registered character information has been received.

24. The record medium as set forth in claim 23, wherein said method further comprises the step of:
if a mail address of a sender of the received mail matches the registered character information, displaying that the mail which includes the registered character information has been received.

25. The record medium as set forth in claim 23, wherein said method further comprises the step of:
if character information included in a title of the received mail matches the

26. The record medium as set forth in claim 23, wherein said method further comprises the steps of:
registering a schedule of a user; and
after receiving the mail, determining, on the basis of the schedule, whether or not it is possible to respond to the mail.
27. The record medium as set forth in claim 26, wherein said method further comprises the step of:
if it is determined, on the basis of the schedule after receiving the mail, that it is possible to respond to the mail, notifying with a sound that the mail has been received.
28. The record medium as set forth in claim 26, wherein said method further comprises the step of:
if it is determined, on the basis of the schedule after receiving the mail, that it is impossible to respond to the mail, creating a response mail responding to the received mail and sending the response mail to a sender of the received mail.
29. The record medium as set forth in claim 28, wherein said method further comprises the step of:
after sending the response mail, displaying that the response mail has been sent.
30. The record medium as set forth in claim 29, wherein said method further comprises the step of:
displaying with an icon that the mail which contains the registered character information has been received and that the response mail has been sent.
31. The record medium as set forth in claim 30, wherein said method further comprises the step of:
after the icon has been selected, displaying a simplified information list which does not include a body of the received mail or detailed information which includes the body of the received mail.
32. The record medium as set forth in claim 31, wherein said method further comprises the step of:
after a predetermined display region of the displayed detailed information is selected, displaying a screen for creating another response mail responding to the received mail of which detailed information is displayed.
33. The record medium as set forth in claim 31, wherein said method further comprises the step of:
after a predetermined display region of the displayed detailed information is selected, performing callback to a sender of the received mail of which detailed information is displayed.

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